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FIG.1.

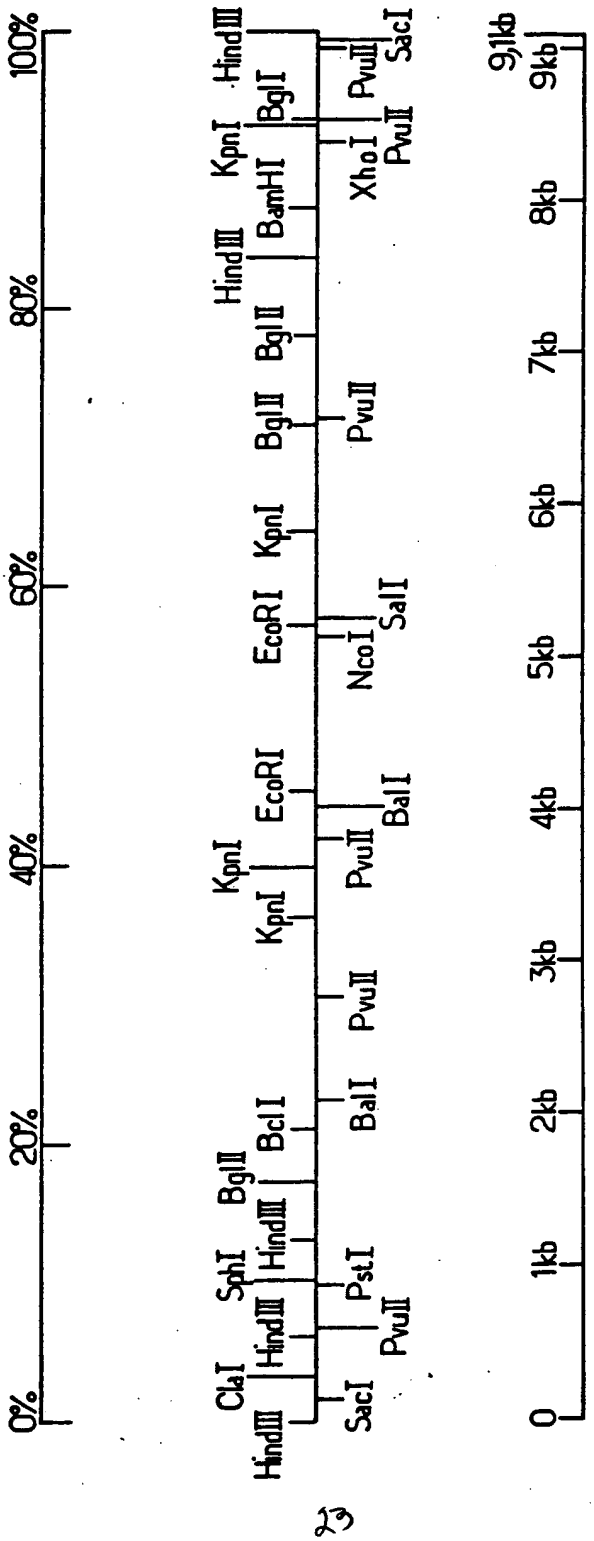

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Fig. 2

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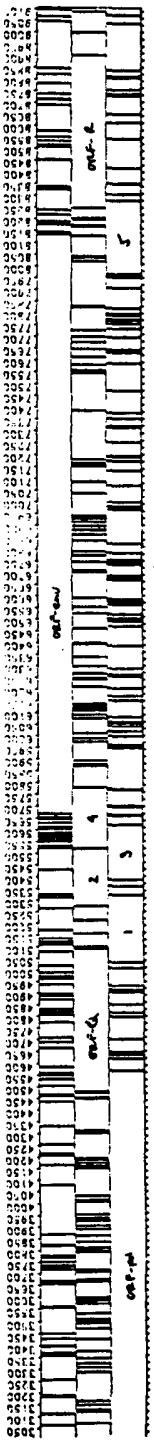

Fig. 2

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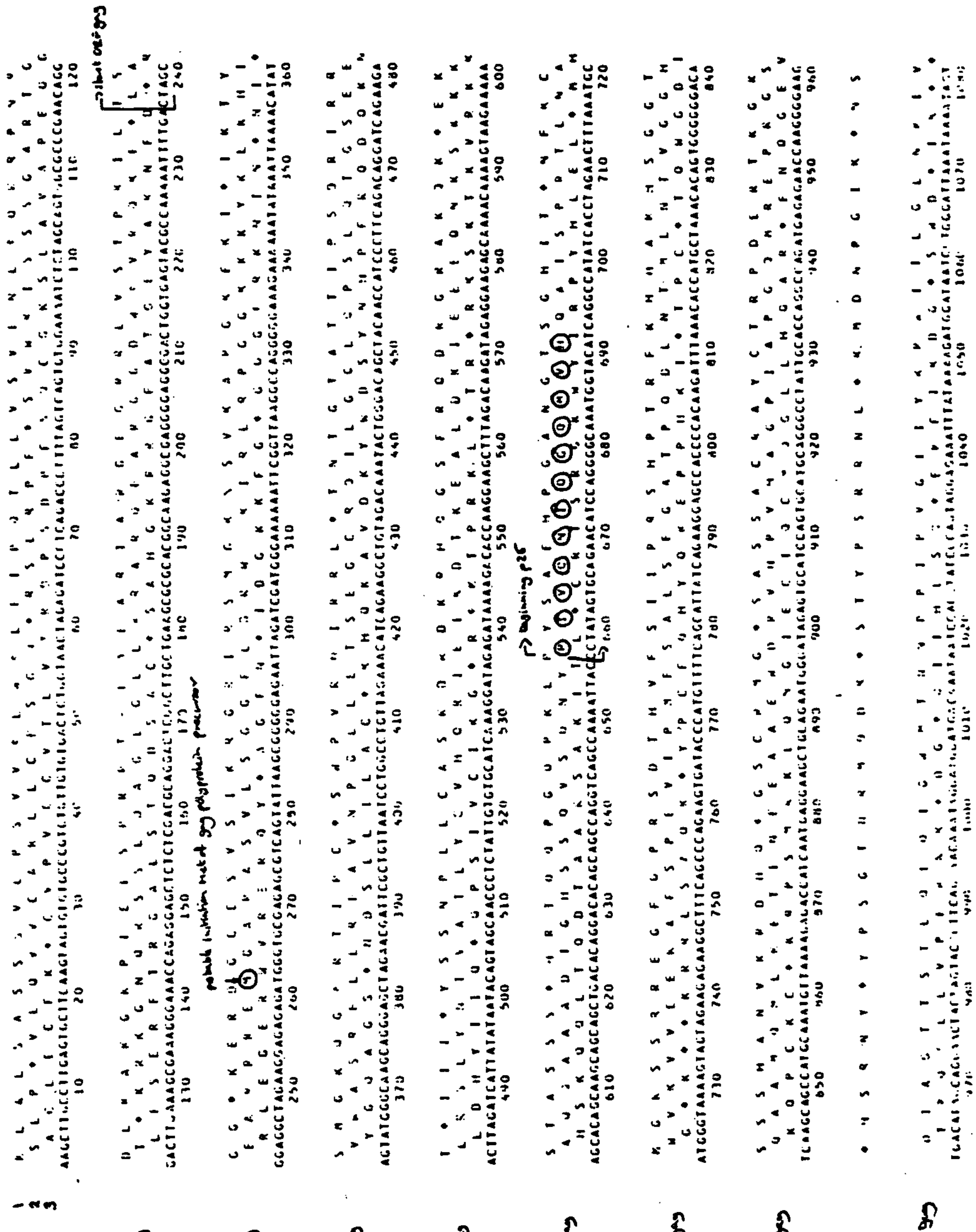

Fig 4

20

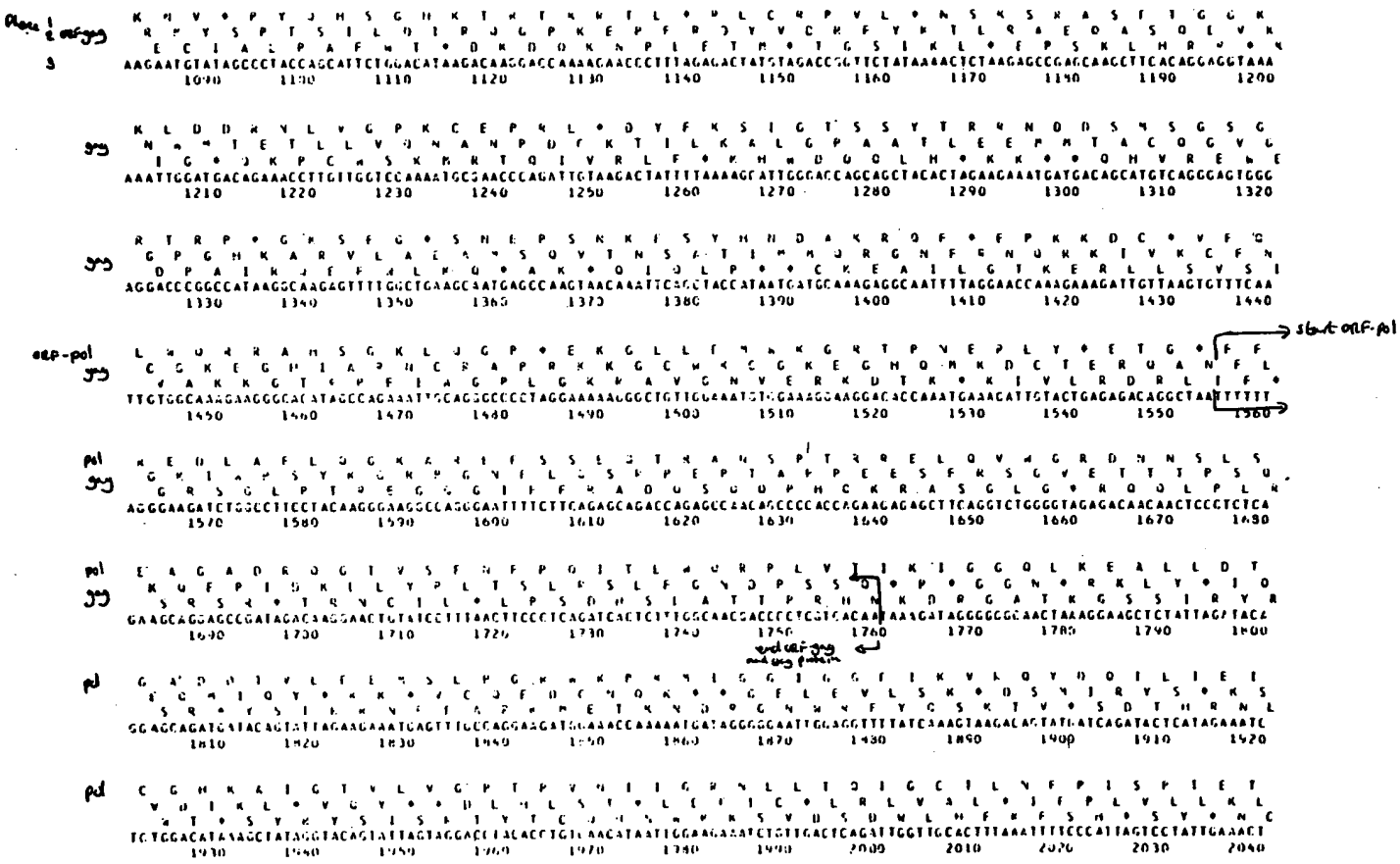

Fig. 5

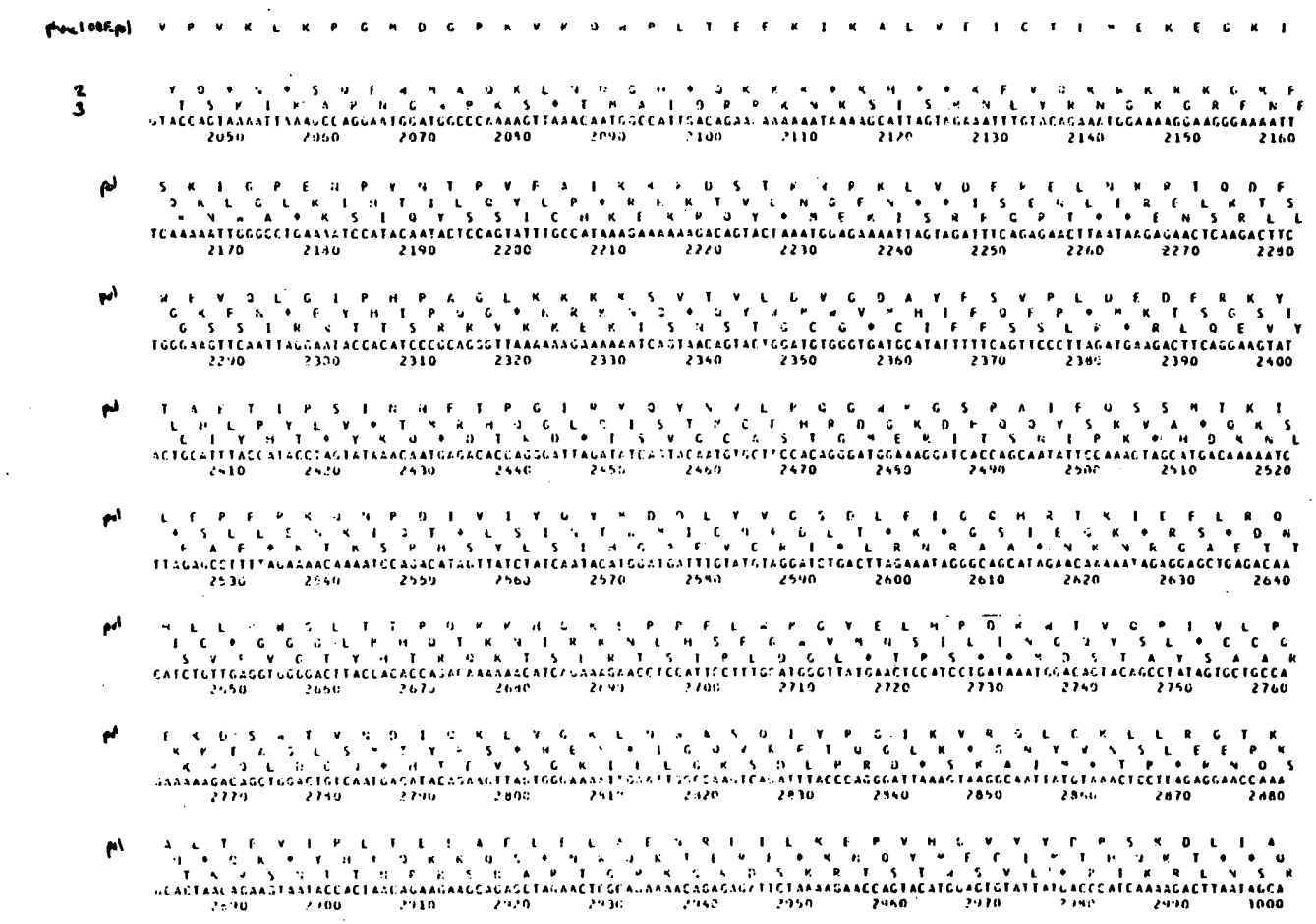

Fig 6

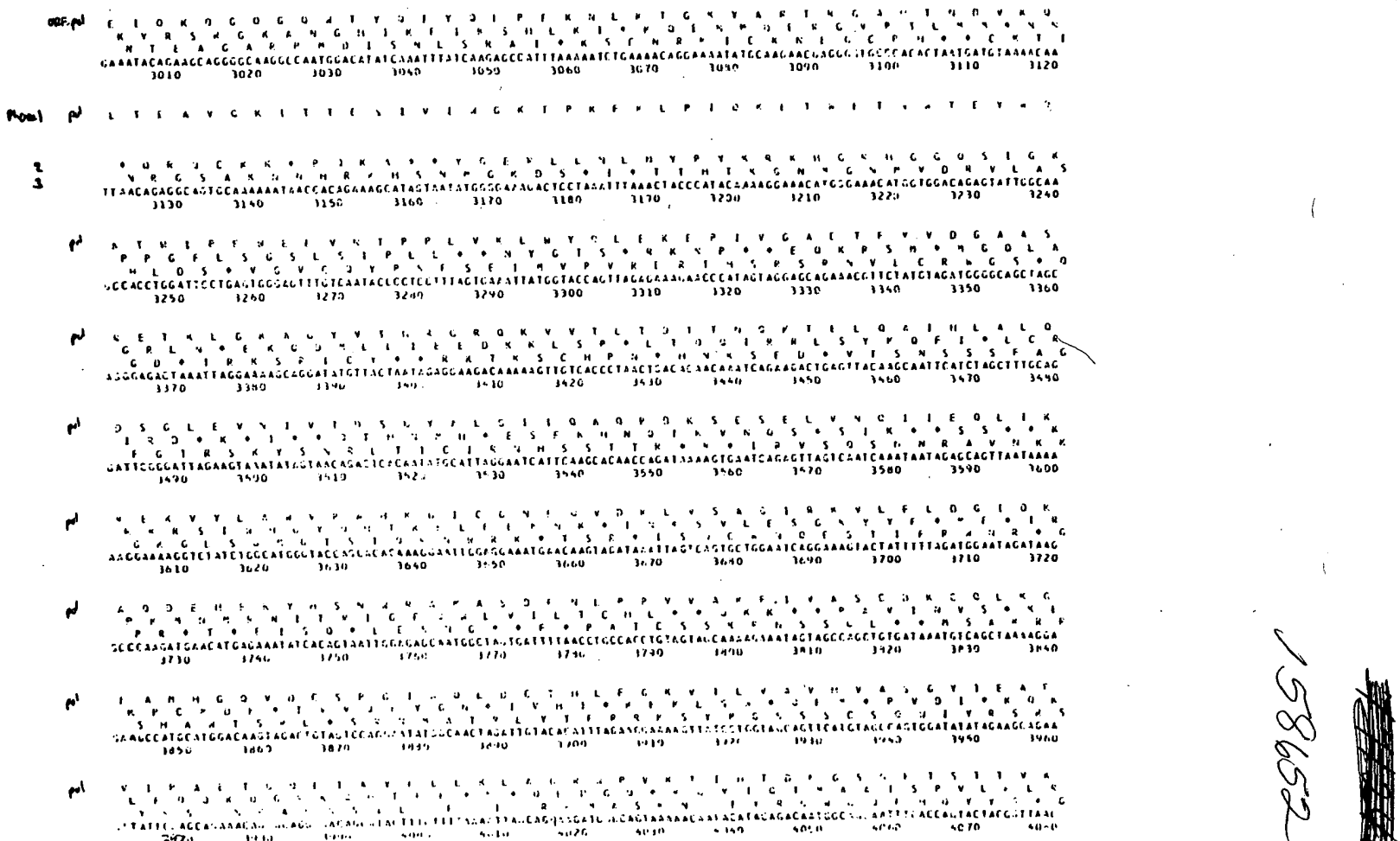

Fig 7

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Fig. 8

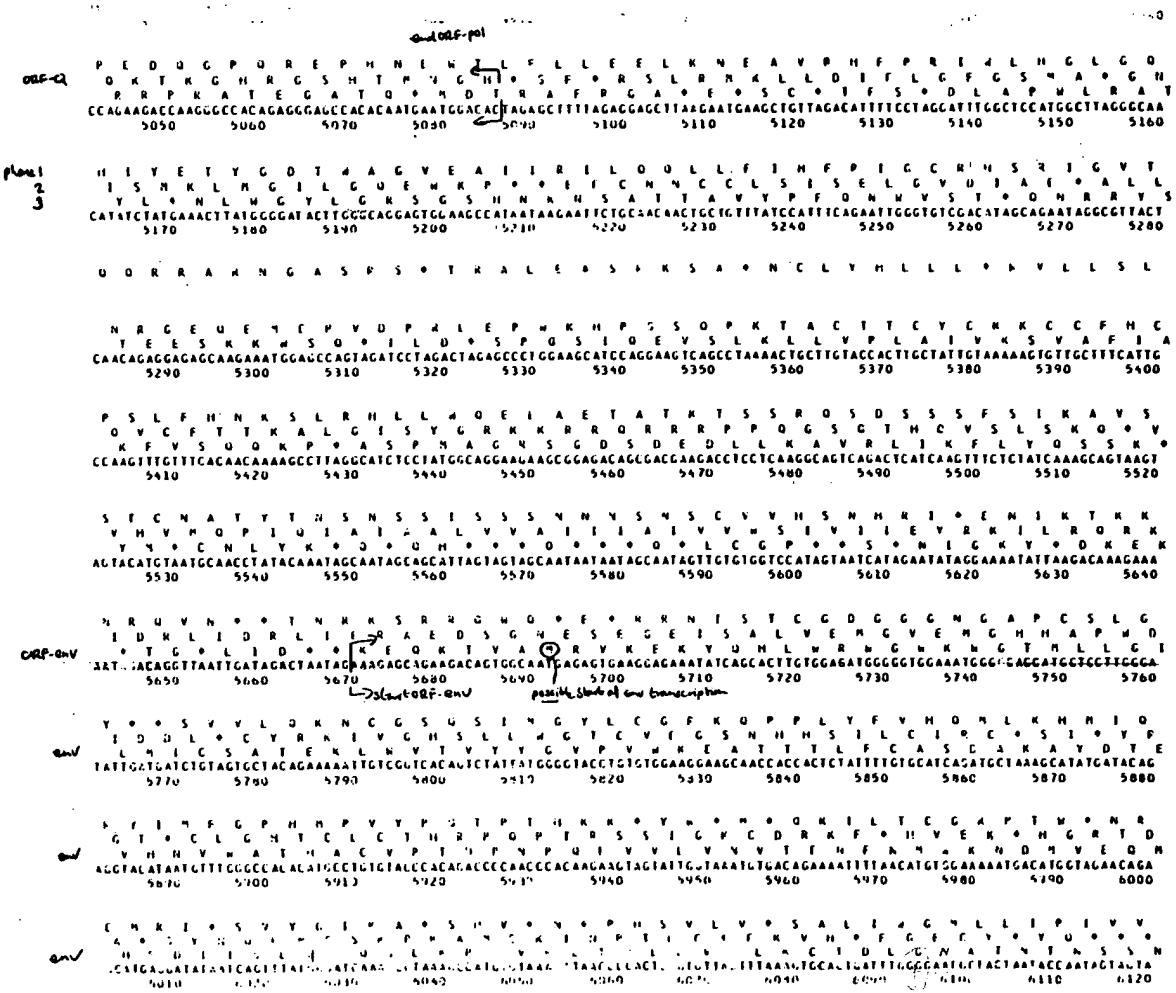

Fig 9

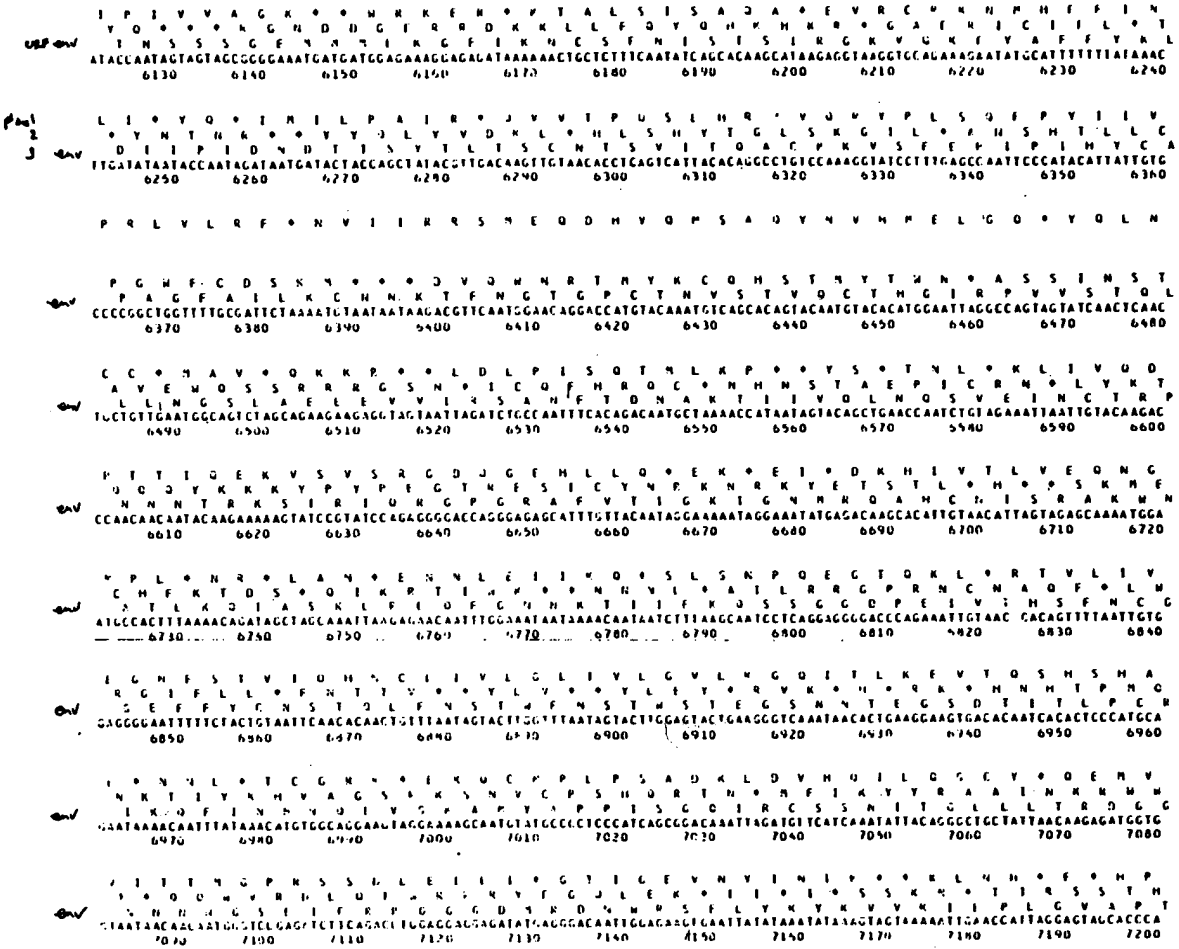

Fig 10

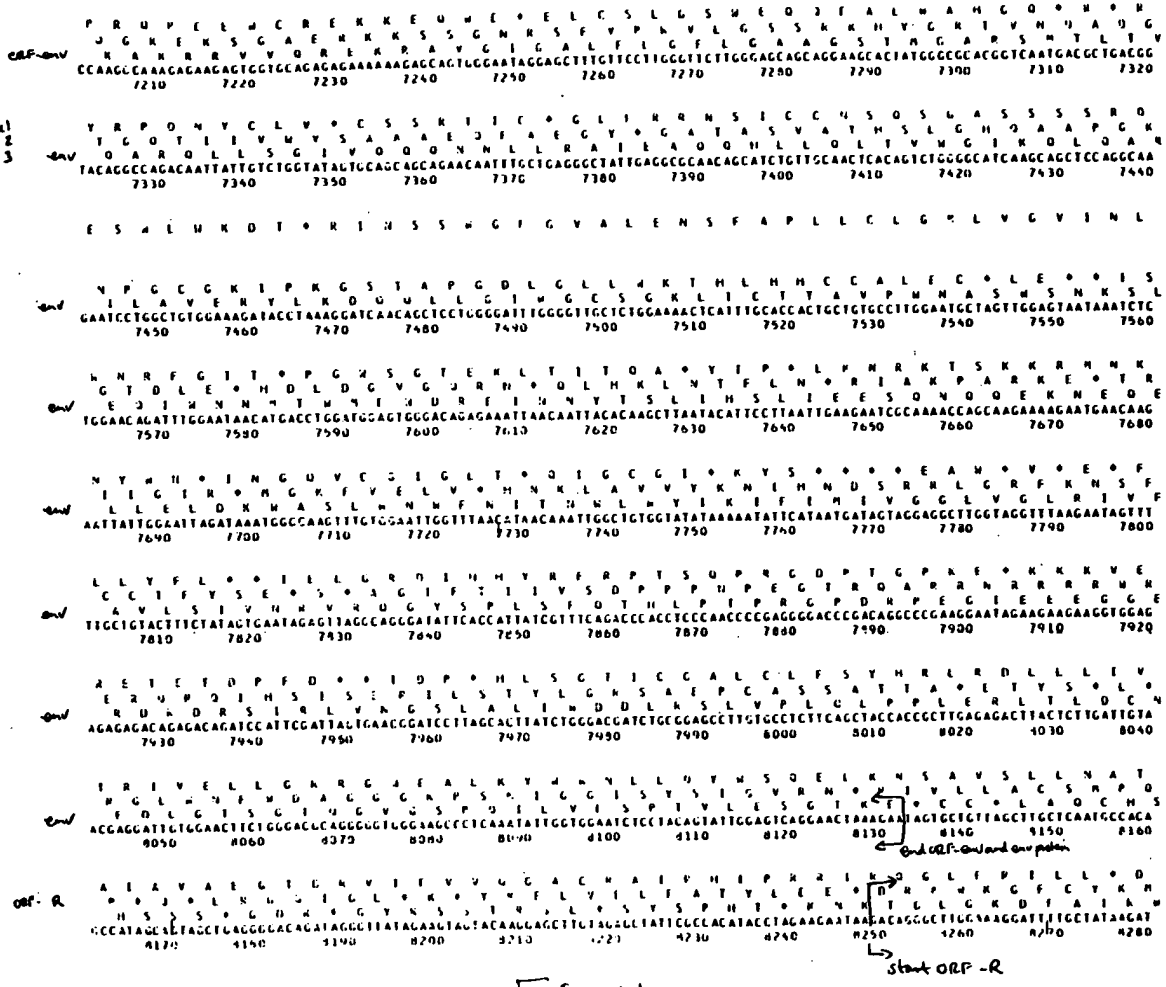

Fig 11

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```
ORF-R    G W Q V V K K * C G W M A Y C K G K N F T S * A S S R W G G S S I S R P G K T W
          G G K W S K S S V V G W P T V R E R M R R A F P A A D G V G A A S R D L F K H G
           V A S G Q K V V W L D G L L * G K E * D E L S Q Q Q - G W E D H L E T W K N M E
         GGCTGGCAAGTGGTCAAAAAGTAGTGTGGTTGGATGGCCTACTGTAAGGGAAAGAATGAGACGAGCTGAGCCAGCAGCAGATGGGGTGGGAGCAGCATCTCGAGACCTGGAAAAACATGG
             8290      8300      8310      8320      8330      8340      8350      8360      8370      8380      8390      8400

phase 1  R  S N H K * Q Y S S Y Q C C L C L A R S T * G G G G G F S S H T S G T F K T N D L
      2     A I T S S H T A A T * A A C A W L F A Q E E E E V G F P V T P C V P L R P M T Y
      3      Q S Q V A I Q Q L P P L L V P G * K H K R R R R W V F Q S H L R Y L * D Q * L T
         AGCAATCACAAGTAGCAATACAGCAGCTACCAATGCTGCTTGTGCCTGGCTAGAAGCACAAGAGGAGGAGGAGGTGGGTTTTCCAGTCACACCTCAGGTACCTTTAAGACCAATGACTTA
             8410      8420      8430      8440      8450      8460      8470      8480      8490      8500      8510      8520

            Q G S C R S * P L F K R K G G T G R A N S L P T K T R Y P * S V D L P H T R L L

         R  K A A V D L S H F L K E K G G L E G L I H S Q R R Q D I L D L W I Y H T Q G Y F
             R Q L * I L A T F * K K R G D W K G * F T P N E D K I S L I C G S T T H K A T S
         CAAGGCAGCTGTAGATCTTAGCCACTTTTTAAAAGAAAAGGGGGGACTGGAAGGGCTAATTCACTCCCAACGAAGACAAGATATCCTTGATCTGTGGATCTACCACACACAAGGCTACTT
             8530      8540      8550      8560      8570      8580      8590      8600      8610      8620      8630      8640

            P * L A E L M T R A R G Q I S T G L W M V L Q A S T S * A R * G R R G Q * R P E
         R   P D N Q N Y T P G P G V R Y P L T F G W C Y K L V P V E P D K V E E A N K G E N
              L I G R T T H Q G Q C S D I H * P L D G A T S * Y Q L S G I R * K R P I K E R T
         CCCTGATTGGCAGAACTACACACCAGGGCCAGGGGTCAGATATCCACTGACCTTTGGATGGTGCTACAAGCTAGTACCAGTTGAGCCAGATAAGGTAGAAGAGGCCAATAAAGGAGAGAA
             8650      8660      8670      8680      8690      8700      8710      8720      8730      8740      8750      8760

            H Q L V T P C E P A W M G * P * E R S V R V E V * Q P P S I S S R G P R A A S G
         R   T S L L H P V S L H G M D D P E R E V L E W R F D S R L A F H H V A R E L H P E
              P A C Y T L * A C M E W M T L R E K C * S G G L T A A * H F I T W P E S C I R S
         CACCAGCTTGTTACACCCTGTGAGCCTGCATGGAATGGATGACCCTGAGAGAGAAGTGTTAGAGTGGAGGTTTGACAGCCGCCTAGCATTTCATCACGTGGCCCGAGAGCTGCATCCGGA
             8770      8780      8790      8800      8810      8820      8830      8840      8850      8860      8870      8880

            V L Q E L L T S S L L Q G T F R W Q L S * E A W P G R N W G V A S P Q M L H I S
         R   Y F K N C * H P A C Y K G L S A G D F P G R K G L G G T G E W R A L R C C I * A
              T S R T A D I E L   T R D F P L G T F Q G G V A W A T L G S G E P S D A A Y K Q
         GTACTTCAAGAACTGCTGACATCGAGCTTGCTACAAGGGACTTTCCGCTGGGGACTTTCCAGGGAGGCGTGGCCTGGGCGGAACTGGGGAGTGGCGAGCCCTCAGATGCTGCATATAAGC
             8890      8900      8910      8920      8930      8940      8950      8960      8970      8980      8990      9000
            ← end ORF-R

            S C F L P V L G L S G * T R F E P G S S L A N * G T H C L S L N K *
             A A F C L Y W V S L V P P D L S L S A L W L T R I P T A * A S I * *
              L L F A C T G S L W L D Q I * A W E L S G * L S N P L L K P Q * * *
         AGCTGCTTTTTGCCTGTACTGGGTCTCTCTGGTTAGACCAGATTTGAGCCTGGGAGCTCTCTGGCTAACTAGGGAACCCACTGCTTAAGCCTCAATA
             9010      9020      9030      9040      9050      9060      9070      9080      9090      9100      7         17
                                                                                                        ↑
                                                                                                       9097
```

fig 12

Fig 13

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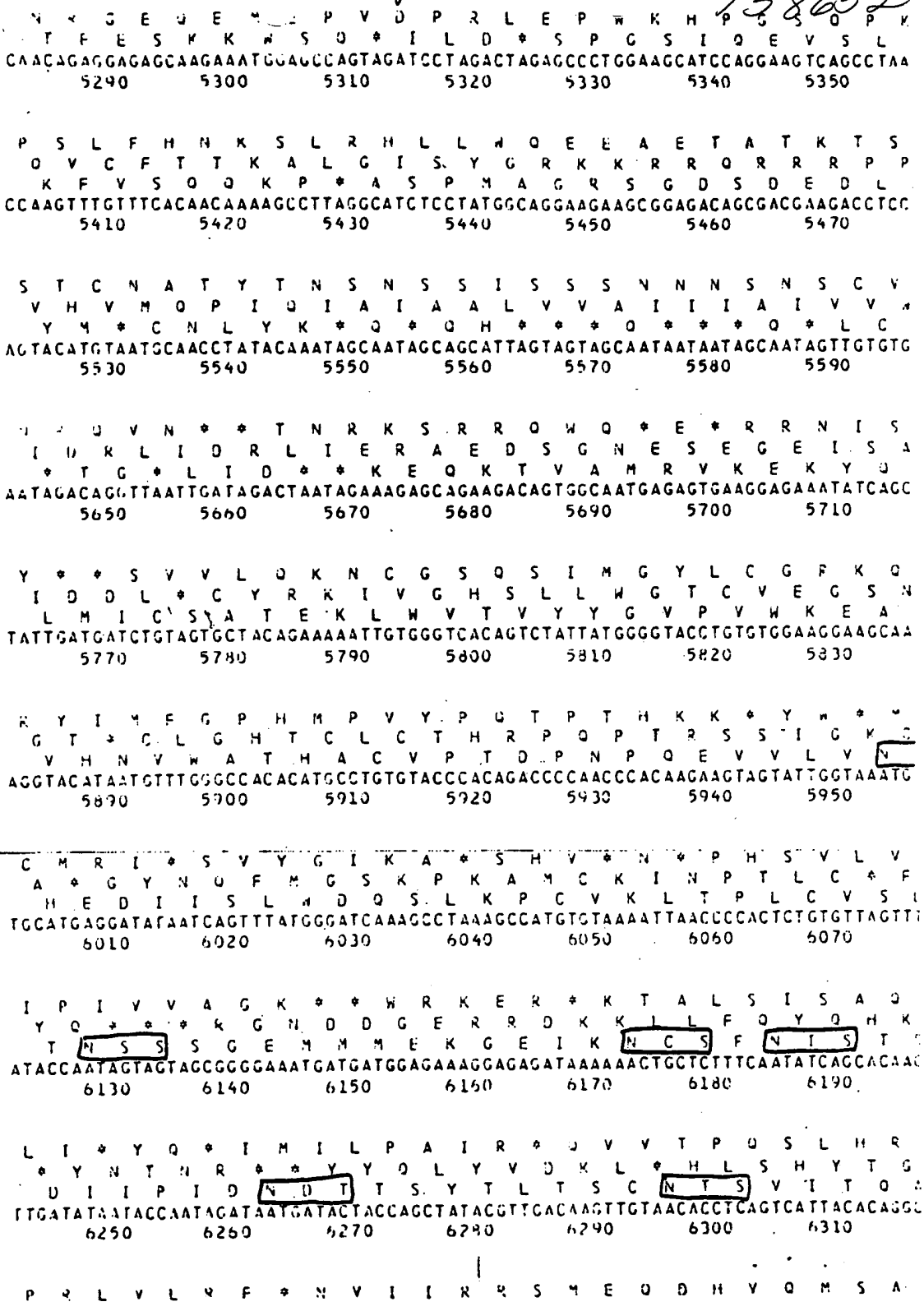

Fig 14

158652

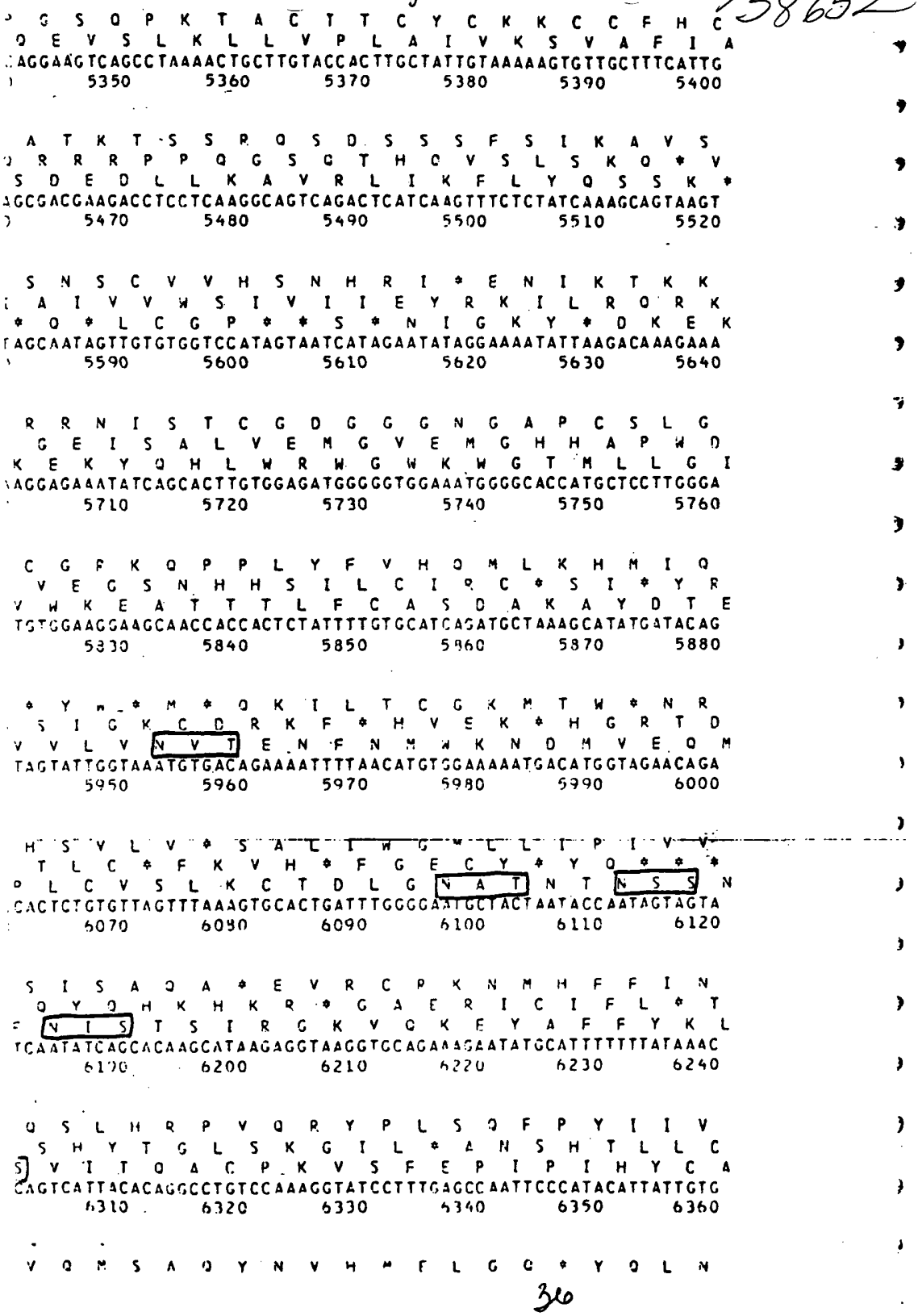

Fig 15

158652

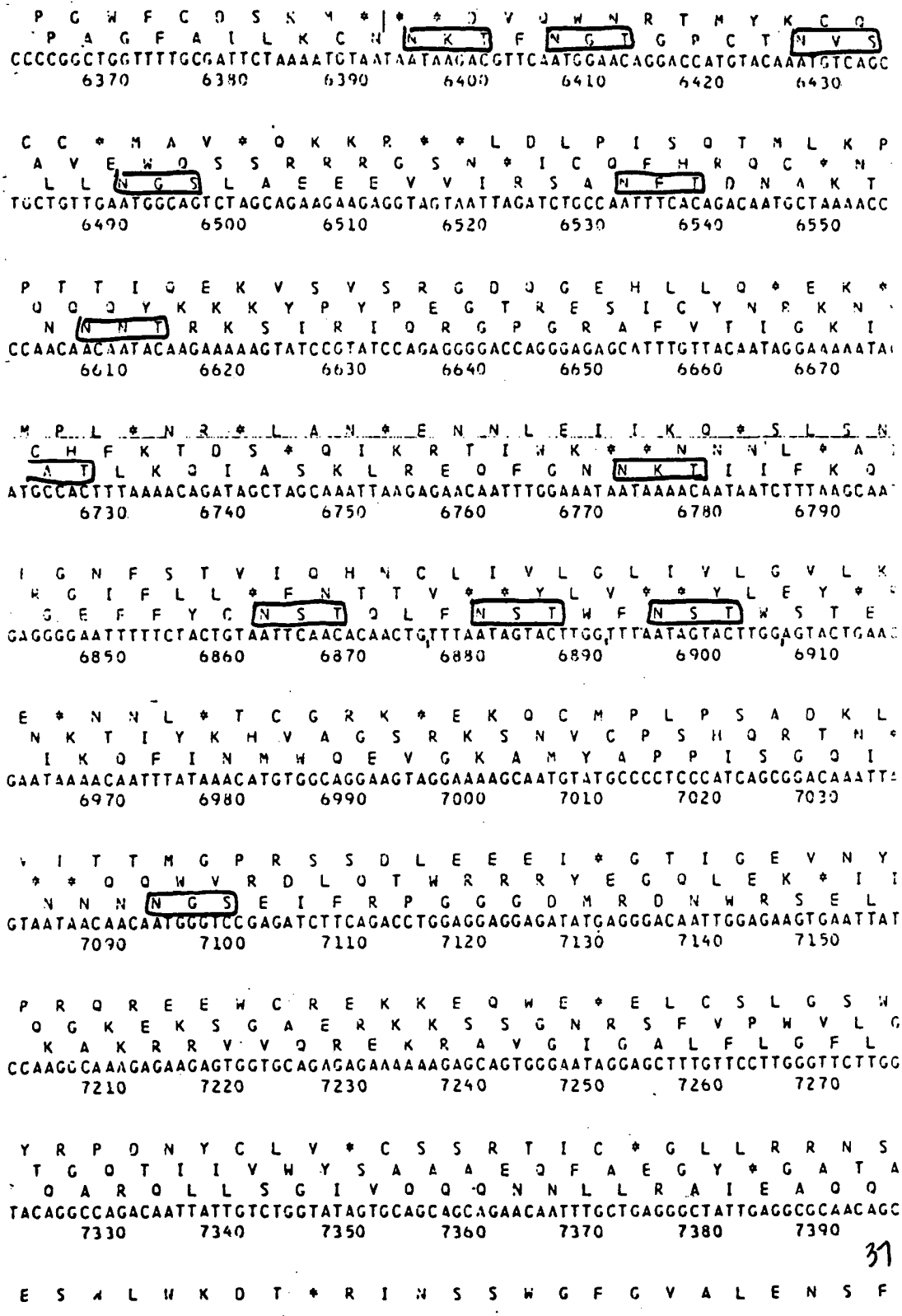

Fig. 16

158652

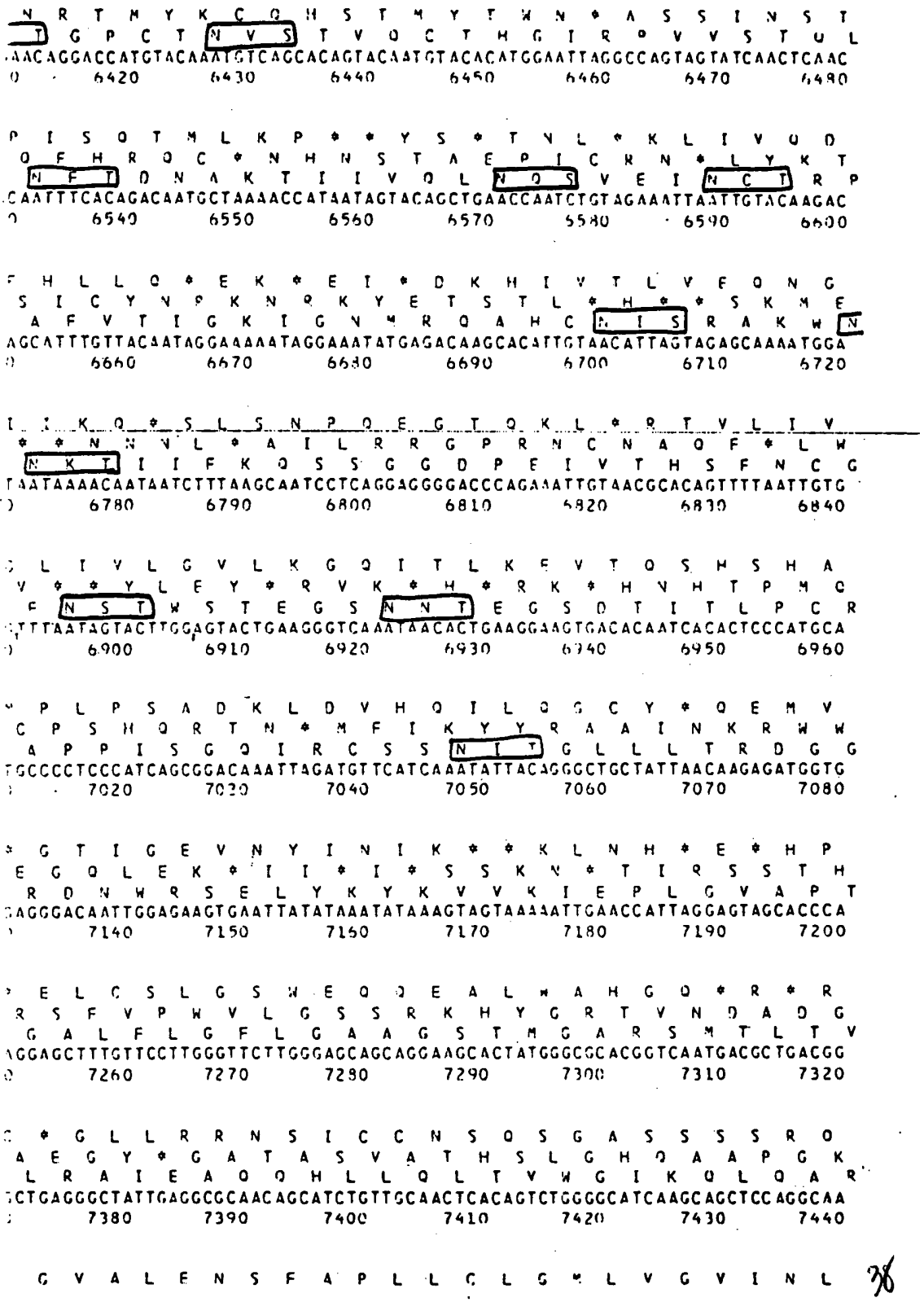

Fig 17

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```
  N  P  G  C  G  K  I  P  K  G  S  T  A  P  G  D  L  G  L  L  *  K  T  H
   I  L  A  V  E  R  Y  L  K  D  Q  Q  L  L  G  I  W  G  C  S  G  K  L  I
GAATCCTGGCTGTGGAAAGATACCTAAAGGATCAACAGCTCCTGGGGATTTGGGGTTGCTCTGGAAAACTCAT
      7450       7460       7470       7480       7490       7500       7510

  W  N  R  F  G  I  T  *  P  G  W  S  G  T  E  K  L  T  I  T  Q  A  *  Y
   G  T  D  L  E  *  H  D  L  D  G  V  G  Q  R  N  *  Q  L  H  K  L  N  T
    E  Q  I  W  N  N  M  T  W  M  E  W  D  R  E  I  N  N  Y  T  S  L  I  H
TGGAACAGATTTGGAATAACATGACCTGGATGGAGTGGGACAGAGAAATTAACAATTACACAAGCTTAATACAT
      7570       7580       7590       7600       7610       7620       7630

  N  Y  W  N  *  I  N  G  Q  V  C  S  I  G  L  T  *  Q  I  G  C  G  I  *  W
   I  I  G  I  R  *  M  G  K  F  V  E  L  V  *  H  N  K  L  A  V  V  Y  K
    L  L  E  L  D  K  W  A  S  L  W  N  W  F  N  I  T  N  W  L  W  Y  I  K
AATTATTGGAATTAGATAAATGGGCAAGTTTGTGGAATTGGTTTAACATAACAAATTGGCTGTGGTATATAAA
      7690       7700       7710       7720       7730       7740       7750

  L  L  Y  F  L  *  *  I  E  L  G  R  D  I  H  H  Y  R  F  R  P  T  S  Q  P
   C  C  T  F  Y  S  E  *  S  *  A  G  I  F  T  I  I  V  S  D  P  P  P  N
    A  V  L  S  I  V  N  R  V  R  Q  G  Y  S  P  L  S  F  Q  T  H  L  P  T
TTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATATTCACCATTATCGTTTCAGACCCACCTCCCAACC
      7810       7820       7830       7840       7850       7860       7870

  R  E  T  E  T  D  P  F  D  *  *  T  D  P  *  H  L  S  G  T  I  C  G  A  L
   E  R  Q  R  Q  I  H  S  I  S  E  R  I  L  S  T  Y  L  G  R  S  A  E  P
    R  D  R  D  R  S  I  R  L  V  N  G  S  L  A  L  I  W  Q  D  L  R  S  L
AGAGAGACAGAGACAGATCCATTCGATTAGTGAACGGATCCTTAGCACTTATCTGGGACGATCTGCGGAGCCTT
      7930       7940       7950       7960       7970       7980       7990

  T  R  I  V  E  L  L  G  K  R  G  W  E  A  L  K  Y  W  W  N  L  L  Q  Y  W
   R  G  L  W  N  F  W  D  A  G  G  G  K  P  S  N  I  G  G  I  S  Y  S  I
    E  D  C  G  T  S  G  T  Q  G  V  G  S  P  Q  I  L  V  E  S  P  T  V  L
ACGAGGATTGTGGAACTTCTGGGACGCAGGGGGTGGGAAGCCCTCAAATATTGGTGGAATCTCCTACAGTATTC
      8050       8060       8070       8080       8090       8100       8110

  A  I  A  V  A  E  G  T  D  R  V  I  E  V  V  Q  G  A  C  R  A  I  R  H  I
   P  *  Q  *  L  R  G  Q  I  G  L  *  K  *  Y  K  E  L  V  E  L  F  A  T
    H  S  S  S  *  G  D  R  *  G  Y  R  S  S  T  R  S  L  *  S  Y  S  P  H
GCCATAGCAGTAGCTGAGGGGACAGATAGGGTTATAGAAGTAGTACAAGGAGCTTGTAGAGCTATTCGCCACAT
      8170       8180       8190       8200       8210       8220       8230

  G  W  Q  V  V  K  K  *  C  G  W  M  A  Y  C  K  G  K  N  E  T  S  *  A  S
   G  G  K  W  S  K  S  S  V  V  G  W  P  T  V  R  E  R  M  R  R  A  E  P
    V  A  S  G  Q  K  V  V  W  L  D  G  L  L  *  G  K  E  *  D  E  L  S  Q
GGGTGGCAAGTGGTCAAAAAGTAGTGTGGTTGGATGGCCTACTGTAAGGGAAAGAATGAGACGAGCTGAGCCAG
      8290       8300       8310       8320       8330       8340       8350

  S  N  H  K  *  Q  Y  S  S  Y  Q  C  C  L  C  L  A  R  S  T  R  G  G  G  C
   A  I  T  S  S  N  T  A  A  T  N  A  A  C  A  W  L  F  A  Q  E  E  E  E
    Q  S  Q  V  A  I  Q  Q  L  P  M  L  L  V  P  G  *  K  H  K  R  R  R  R
AGCAATCACAAGTAGCAATACAGCAGCTACCAATGCTGCTTGTGCCTGGCTAGAAGCACAAAGAGGAGGAGGAGG
      8410       8420       8430       8440       8450       8460       8470

  Q  G  S  C  R  S  *  P  L  F  K  R  K  G  G  T  G  R  A  N  S  L  P  T  K
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Fig 18

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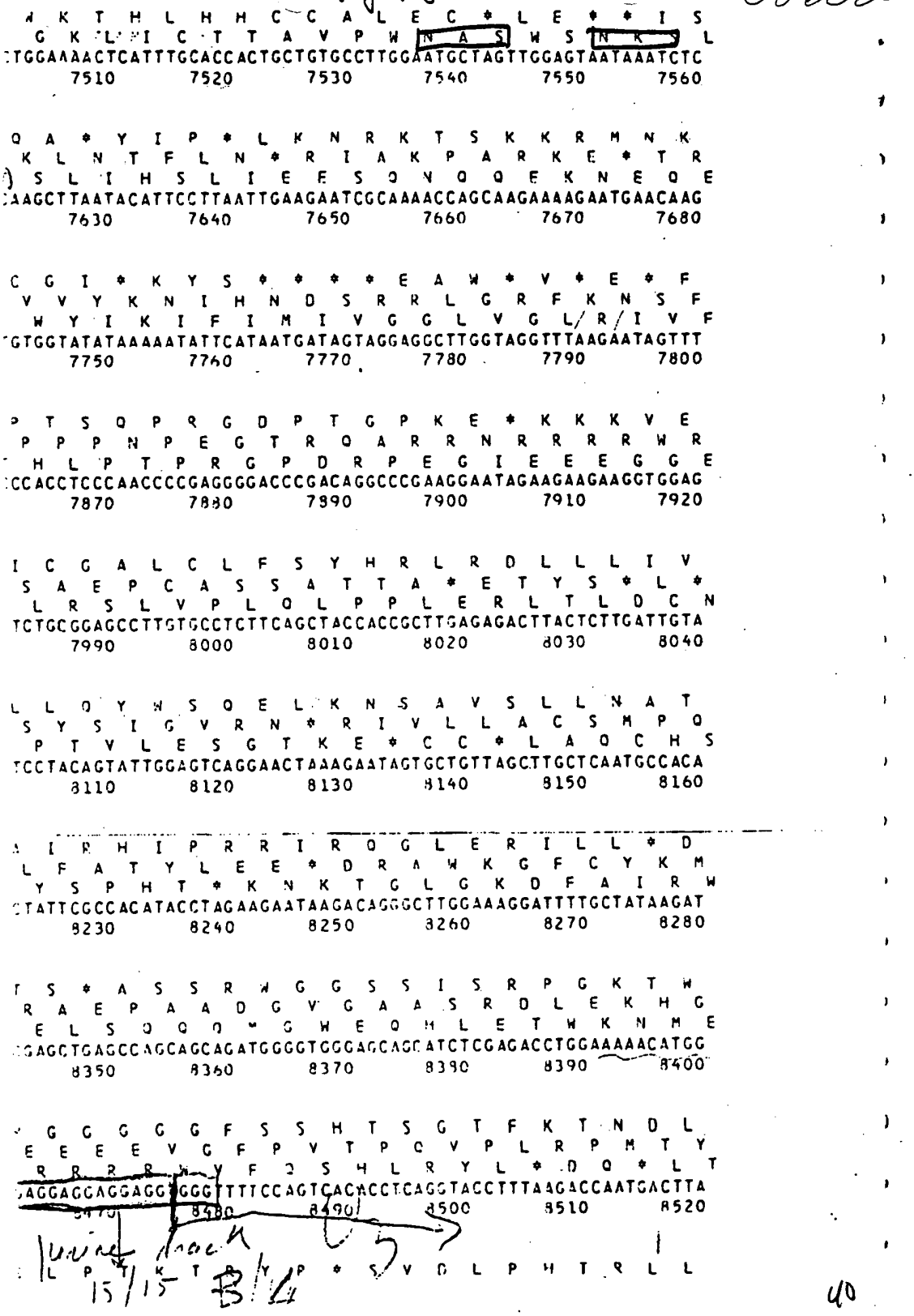

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[redacted]

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Fig 19

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        10          20          30          40          50          60
AAGCTTGCCT TGAGTGCTTC AAGTAGTGTG TGCCCGTCTG TTGTGTGACT CTGGTAACTA

        70          80          90         100         110         120
GAGATCCCTC AGACCCTTTT AGTCAGTGTG GAAAATCTCT AGCAGTGGCG CCCGAACAGG

       130         140         150         160         170         180
GACTTGAAAG CGAAAGGGAA ACCAGAGGAG CTCTCTCGAC GCAGGACTCG GCTTGCTGAA

       190         200         210         220         230         240
GCGCGCACGG CAAGAGGCGA GGGGAGGCGA CTGGTGAGTA CGCCAAAAAT TTTGACTAGC

       250         260         270         280         290         300
GGAGGCTAGA AGGAGAGAGA TGGGTGCGAG AGCGTCAGTA TTAAGCGGGG GAGAATTAGA

       310         320         330         340         350         360
TCGATGGGAA AAAATTCGGT TAAGGCCAGG GGGAAAGAAA AAATATAAAT TAAAACATAT

       370         380         390         400         410         420
AGTATGGGCA AGCAGGGAGC TAGAACGATT CGCTGTTAAT CCTGGCCTGT TAGAAACATC

       430         440         450         460         470         480
AGAAGGCTGT AGACAAATAC TGGGACAGCT ACAACCATCC CTTCAGACAG GATCAGAAGA

       490         500         510         520         530         540
ACTTAGATCA TTATATAATA CAGTAGCAAC CCTCTATTGT GTGCATCAAA GGATAGAGAT

       550         560         570         580         590         600
AAAAGACACC AAGGAAGCTT TAGACAAGAT AGAGGAAGAG CAAAACAAAA GTAAGAAAAA

       610         620         630         640         650         660
AGCACAGCAA GCAGCAGCTG ACACAGGACA CAGCAGCCAG GTCAGCCAAA ATTACCCTAT

       670         680         690         700         710         720
AGTGCAGAAC ATCCAGGGGC AAATGGTACA TCAGGCCATA TCACCTAGAA CTTTAAATGC

       730         740         750         760         770         780
ATGGGTAAAA GTAGTAGAAG AGAAGGCTTT CAGCCCAGAA GTGATACCCA TGTTTTCAGC

       790         800         810         820         830         840
ATTATCAGAA GGAGCCACCC CACAAGATTT AAACACCATG CTAAACACAG TGGGGGGACA

       850         860         870         880         890         900
TCAAGCAGCC ATGCAAATGT TAAAAGAGAC CATCAATGAG GAAGCTGCAG AATGGGATAG

       910         920         930         940         950         960
AGTGCATCCA GTGCATGCAG GGCCTATTGC ACCAGGCCAG ATGAGAGAAC CAAGGGGAAG

       970         980         990        1000        1010        1020
TGACATAGCA GGAACTACTA GTACCCTTCA GGAACAAATA GGATGGATGA CAAATAATCC

      1030        1040        1050        1060        1070        1080
ACCTATCCCA GTAGGAGAAA TTTATAAAAG ATGGATAATC CTGGGATTAA ATAAAATAGT

      1090        1100        1110        1120        1130        1140
```

[redacted]

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Fig 20

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AAGAATGTAT AGCCCTACCA GCATTCTGGA CATAAGACAA GGACCAAAAG AACCCTTTAG

      1150        1160        1170        1180        1190        1200
AGACTATGTA GACCGGTTCT ATAAAACTCT AAGAGCCGAG CAAGCTTCAC AGGAGGTAAA

      1210        1220        1230        1240        1250        1260
AAATTGGATG ACAGAAACCT TGTTGGTCCA AAATGCGAAC CCAGATTGTA AGACTATTTT

      1270        1280        1290        1300        1310        1320
AAAAGCATTG GGACCAGCAG CTACACTAGA AGAAATGATG ACAGCATGTC AGGGAGTGGG

      1330        1340        1350        1360        1370        1380
AGGACCCGGC CATAAGGCAA GAGTTTTGGC TGAAGCAATG AGCCAAGTAA CAAATTCAGC

      1390        1400        1410        1420        1430        1440
TACCATAATG ATGCAAAGAG GCAATTTTAG GAACCAAAGA AAGATTGTTA AGTGTTTCAA

      1450        1460        1470        1480        1490        1500
TTGTGGCAAA GAAGGGCACA TAGCCAGAAA TTGCAGGGCC CCTAGGAAAA AGGGCTGTTG

      1510        1520        1530        1540        1550        1560
GAAATGTGGA AAGGAAGGAC ACCAAATGAA AGATTGTACT GAGAGACAGG CTAATTTTTT

      1570        1580        1590        1600        1610        1620
AGGGAAGATC TGGCCTTCCT ACAAGGGAAG GCCAGGGAAT TTTCTTCAGA GCAGACCAGA

      1630        1640        1650        1660        1670        1680
GCCAACAGCC CCACCAGAAG AGAGCTTCAG GTCTGGGGTA GAGACAACAA CTCCCTCTCA

      1690        1700        1710        1720        1730        1740
GAAGCAGGAG CCGATAGACA AGGAACTGTA TCCTTTAACT TCCCTCAGAT CACTCTTTGG

      1750        1760        1770        1780        1790        1800
CAACGACCCC TCGTCACAAT AAAGATAGGG GGGCAACTAA AGGAAGCTCT ATTAGATACA

      1810        1820        1830        1840        1850        1860
GGAGCAGATG ATACAGTATT AGAAGAAATG AGTTTGCCAG GAAGATGGAA ACCAAAAATC

      1870        1880        1890        1900        1910        1920
ATAGGGGGAA TTGGAGGTTT TATCAAAGTA AGACAGTATG ATCAGATACT CATAGAAATC

      1930        1940        1950        1960        1970        1980
TGTGGACATA AAGCTATAGG TACAGTATTA GTAGGACCTA CACCTGTCAA CATAATTGGA

      1990        2000        2010        2020        2030        2040
AGAAATCTGT TGACTCAGAT TGGTTGCACT TTAAATTTTC CCATTAGTCC TATTGAAACT

      2050        2060        2070        2080        2090        2100
GTACCAGTAA AATTAAAGCC AGGAATGGAT GGCCCAAAAG TTAAACAATG GCCATTGACA

      2110        2120        2130        2140        2150        2160
GAAGAAAAAA TAAAAGCATT AGTAGAAATT TGTACAGAAA TGGAAAAGGA AGGGAAAATT

      2170        2180        2190        2200        2210        2220
TCAAAAATTG GGCCTGAAAA TCCATACAAT ACTCCAGTAT TTGCCATAAA GAAAAAAGAC

      2230        2240        2250        2260        2270        2280
AGTACTAAAT GGAGAAAATT AGTAGATTTC AGAGAACTTA ATAAGAGAAC TCAAGACTTC

      2290        2300        2310        2320        2330        2340
TGGGAAGTTC AATTAGGAAT ACCACATCCC GCAGGGTTAA AAAAGAAAAA ATCAGTAACA

      2350        2360        2370        2380        2390        2400
```

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Fig 21

```
GTACTGGATG TGGGTGATGC ATATTTTTCA GTTCCCTTAG ATGAAGACTT CAGGAAGTAT

      2410       2420       2430       2440       2450       2460
ACTGCATTTA CCATACCTAG TATAAACAAT GAGACACCAG GGATTAGATA TCAGTACAAT

      2470       2480       2490       2500       2510       2520
GTGCTTCCAC AGGGATGGAA AGGATCACCA GCAATATTCC AAAGTAGCAT GACAAAAATC

      2530       2540       2550       2560       2570       2580
TTAGAGCCTT TTAGAAAACA AAATCCAGAC ATAGTTATCT ATCAATACAT GGATGATTTG

      2590       2600       2610       2620       2630       2640
TATGTAGGAT CTGACTTAGA AATAGGGCAG CATAGAACAA AAATAGAGGA GCTGAGACAA

      2650       2660       2670       2680       2690       2700
CATCTGTTGA GGTGGGGACT TACCACACCA GACAAAAAAC ATCAGAAAGA ACCTCCATTC

      2710       2720       2730       2740       2750       2760
CTTTGGATGG GTTATGAACT CCATCCTGAT AAATGGACAG TACAGCCTAT AGTGCTGCCA

      2770       2780       2790       2800       2810       2820
GAAAAAGACA GCTGGACTGT CAATGACATA CAGAAGTTAG TGGGAAAATT GAATTGGGCA

      2830       2840       2850       2860       2870       2880
AGTCAGATTT ACCCAGGGAT TAAAGTAAGG CAATTATGTA AACTCCTTAG AGGAACCAAA

      2890       2900       2910       2920       2930       2940
GCACTAACAG AAGTAATACC ACTAACAGAA GAAGCAGAGC TAGAACTGGC AGAAAACAGA

      2950       2960       2970       2980       2990       3000
GAGATTCTAA AAGAACCAGT ACATGGAGTG TATTATGACC CATCAAAAGA CTTAATAGCA

      3010       3020       3030       3040       3050       3060
GAAATACAGA AGCAGGGGCA AGGCCAATGG ACATATCAAA TTTATCAAGA GCCATTTAAA

      3070       3080       3090       3100       3110       3120
AATCTGAAAA CAGGAAAATA TGCAAGAACG AGGGGTGCCC ACACTAATGA TGTAAAACAA

      3130       3140       3150       3160       3170       3180
TTAACAGAGG CAGTGCAAAA AATAACCACA GAAAGCATAG TAATATGGGG AAAGACTCCT

      3190       3200       3210       3220       3230       3240
AAATTTAAAC TACCCATACA AAAGGAAACA TGGGAAACAT GGTGGACAGA GTATTGGCAA

      3250       3260       3270       3280       3290       3300
GCCACCTGGA TTCCTGAGTG GGAGTTTGTC AATACCCCTC CTTTAGTGAA ATTATGCTAC

      3310       3320       3330       3340       3350       3360
CAGTTAGAGA AAGAACCCAT AGTAGGAGCA GAAACGTTCT ATGTAGATGG GGCAGCTAGC

      3370       3380       3390       3400       3410       3420
AGGGAGACTA AATTAGGAAA AGCAGGATAT GTTACTAATA GAGGAAGACA AAAAGTTGTC

      3430       3440       3450       3460       3470       3480
ACCCTAACTG ACACAACAAA TCAGAAGACT GAGTTACAAG CAATTCATCT AGCTTTGCAG

      3490       3500       3510       3520       3530       3540
GATTCGGGAT TAGAAGTAAA TATAGTAACA GACTCACAAT ATGCATTAGG AATCATTCAA

      3550       3560       3570       3580       3590       3600
GCACAACCAG ATAAAAGTGA ATCAGAGTTA GTCAATCAAA TAATAGAGCA GTTAATAAAA

      3610       3620       3630       3640       3650       3660
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Fig 22

AAGAAAAAAG TCTATCTGGC ATGGGTACCA GCACACAAAG GAATTGGAGG AAATGAACAA

3670 3680 3690 3700 3710 3720
GTAGATAAAT TAGTCAGTGC TGGAATCAGG AAAGTACTAT TTTTAGATGG AATAGATAAG

3730 3740 3750 3760 3770 3780
GCCCAAGATG AACATGAGAA ATATCACAGT AATTGGAGAG CAATGGCTAG TGATTTTAAC

3790 3800 3810 3820 3830 3840
CTGCCACCTG TAGTAGCAAA AGAAATAGTA GCCAGCTGTG ATAAATGTCA GCTAAAAGGA

3850 3860 3870 3880 3890 3900
GAAGCCATGC ATGGACAAGT AGACTGTAGT CCAGGAATAT GGCAACTAGA TTGTACACAT

3910 3920 3930 3940 3950 3960
TTAGAAGGAA AAGTTATCCT GGTAGCAGTT CATGTAGCCA GTGGATATAT AGAAGCAGAA

3970 3980 3990 4000 4010 4020
GTTATTCCAG CAGAAACAGG GCAGGAAACA GCATACTTTC TTTTAAAATT AGCAGGAAGA

4030 4040 4050 4060 4070 4080
TGGCCAGTAA AAACAATACA TACAGACAAT GGCAGCAATT TCACCAGTAC TACGGTTAAG

4090 4100 4110 4120 4130 4140
GCCGCCTGTT GGTGGGCGGG AATCAAGCAG GAATTTGGAA TTCCCTACAA TCCCCAAAGT

4150 4160 4170 4180 4190 4200
CAAGGAGTAG TAGAATCTAT GAATAAAGAA TTAAAGAAAA TTATAGGCCA GGTAAGAGAT

4210 4220 4230 4240 4250 4260
CAGGCTGAAC ATCTTAAGAC AGCAGTACAA ATGGCAGTAT TCATCCACAA TTTTAAAAGA

4270 4280 4290 4300 4310 4320
AAAGGGGGGA TTGGGGGGTA CAGTGCAGGG GAAAGAATAG TAGACATAAT AGCAACAGAC

4330 4340 4350 4360 4370 4380
ATACAAACTA AAGAATTACA AAAACAAATT ACAAAAAATTC AAAATTTTCG GGTTTATTAC

4390 4400 4410 4420 4430 4440
AGGGACAGCA GAGATCCACT TTGGAAAGGA CCAGCAAAGC TCCTCTGGAA AGGTGAAGGG

4450 4460 4470 4480 4490 4500
GCAGTAGTAA TACAAGATAA TAGTGACATA AAAGTAGTGC CAAGAAGAAA AGCAAAGATC

4510 4520 4530 4540 4550 4560
ATTAGGGATT ATGGAAAACA GATGGCAGGT GATGATTGTG TGGCAAGTAG ACAGGATGAG

4570 4580 4590 4600 4610 4620
GATTAGAACA TGGAAAAGTT TAGTAAAACA CCATATGTAT GTTTCAGGGA AAGCTAGGGG

4630 4640 4650 4660 4670 4680
ATGGTTTTAT AGACATCACT ATGAAAGCCC TCATCCAAGA ATAAGTTCAG AAGTACACAT

4690 4700 4710 4720 4730 4740
CCCACTAGGG GATGCTAGAT TGGTAATAAC AACATATTGG GGTCTGCATA CAGGAGAAAG

4750 4760 4770 4780 4790 4800
AGACTGGCAT CTGGGTCAGG GAGTCTCCAT AGAATGGAGG AAAAAGAGAT ATAGCACACA

4810 4820 4830 4840 4850 4860
AGTAGACCCT GAACTAGCAG ACCAACTAAT TCATCTGTAT TACTTTGACT GTTTTTCAGA

44 4870 4880 4890 4900 4910 4920

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Fig 23

CTCTGCTATA AGAAAGGCCT TATTAGGACA TATAGTTAGC CCTAGGTGTG AATATCAAGC

4930 4940 4950 4960 4970 4980
AGGACATAAC AAGGTAGGAT CTCTACAATA CTTGGCACTA GCAGCATTAA TAACACCAAA

4990 5000 5010 5020 5030 5040
AAAGATAAAG CCACCTTTGC CTAGTGTTAC GAAACTGACA GAGGATAGAT GGAACAAGCC

5050 5060 5070 5080 5090 5100
CCAGAAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT GGACACTAGA GCTTTTAGAG

5110 5120 5130 5140 5150 5160
GAGCTTAAGA ATGAAGCTGT TAGACATTTT CCTAGGATTT GGCTCCATGG CTTAGGGCAA

5170 5180 5190 5200 5210 5220
CATATCTATG AAACTTATGG GGATACTTGG GCAGGAGTGG AAGCCATAAT AAGAATTCTG

5230 5240 5250 5260 5270 5280
CAACAACTGC TGTTTATCCA TTTCAGAATT GGGTGTCGAC ATAGCAGAAT AGGCGTTACT

5290 5300 5310 5320 5330 5340
CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA CTAGAGCCCT GGAAGCATCC

5350 5360 5370 5380 5390 5400
AGGAAGTCAG CCTAAAACTG CTTGTACCAC TTGCTATTGT AAAAAGTGTT GCTTTCATTG

5410 5420 5430 5440 5450 5460
CCAAGTTTGT TTCACAACAA AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA

5470 5480 5490 5500 5510 5520
GCGACGAAGA CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAGTAAGT

5530 5540 5550 5560 5570 5580
AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT

5590 5600 5610 5620 5630 5640
AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG AAAATATTAA GACAAAGAAA

5650 5660 5670 5680 5690 5700
AATAGACAGG TTAATTGATA GACTAATAGA AAGAGCAGAA GACAGTGGCA ATGAGAGTGA

5710 5720 5730 5740 5750 5760
AGGAGAAATA TCAGCACTTG TGGAGATGGG GGTGGAAATG GGGCACCATG CTCCTTGGGA

5770 5780 5790 5800 5810 5820
TATTGATGAT CTGTAGTGCT ACAGAAAAAT TGTGGGTCAC AGTCTATTAT GGGGTACCTG

5830 5840 5850 5860 5870 5880
TGTGGAAGGA AGCAACCACC ACTCTATTTT GTGCATCAGA TGCTAAAGCA TATGATACAG

5890 5900 5910 5920 5930 5940
AGGTACATAA TGTTTGGGCC ACACATGCCT GTGTACCCAC AGACCCCAAC CCACAAGAAG

5950 5960 5970 5980 5990 6000
TAGTATTGGT AAATGTGACA GAAAATTTTA ACATGTGGAA AAATGACATG GTAGAACAGA

6010 6020 6030 6040 6050 6060
TGCATGAGGA TATAATCAGT TTATGGGATC AAAGCCTAAA GCCATGTGTA AAATTAACCC

6070 6080 6090 6100 6110 6120
CACTCTGTGT TAGTTTAAAG TGCACTGATT TGGGGAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180

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ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAGG AGAGATAAAA AACTGCTCTT

      6190        6200        6210        6220        6230        6240
TCAATATCAG CACAAGCATA AGAGGTAAGG TGCAGAAAGA ATATGCATTT TTTTATAAAC

      6250        6260        6270        6280        6290        6300
TTGATATAAT ACCAATAGAT AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

      6310        6320        6330        6340        6350        6360
CAGTCATTAC ACAGGCCTGT CCAAAGGTAT CCTTTGAGCC AATTCCCATA CATTATTGTG

      6370        6380        6390        6400        6410        6420
CCCCGGCTGG TTTTGCGATT CTAAAATGTA ATAATAAGAC GTTCAATGGA ACAGGACCAT

      6430        6440        6450        6460        6470        6480
GTACAAATGT CAGCACAGTA CAATGTACAC ATGGAATTAG GCCAGTAGTA TCAACTCAAC

      6490        6500        6510        6520        6530        6540
TGCTGTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTTCACAG

      6550        6560        6570        6580        6590        6600
ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

      6610        6620        6630        6640        6650        6660
CCAACAACAA TACAAGAAAA AGTATCCGTA TCCAGAGGGG ACCAGGGAGA GCATTTGTTA

      6670        6680        6690        6700        6710        6720
CAATAGGAAA AATAGGAAAT ATGAGACAAG CACATTGTAA CATTAGTAGA GCAAAATGGA

      6730        6740        6750        6760        6770        6780
ATGCCACTTT AAAACAGATA GCTAGCAAAT TAAGAGAACA ATTTGGAAAT AATAAAACAA

      6790        6800        6810        6820        6830        6840
TAATCTTTAA GCAATCCTCA GGAGGGGACC CAGAAATTGT AACGCACAGT TTTAATTGTG

      6850        6860        6870        6880        6890        6900
GAGGGGAATT TTTCTACTGT AATTCAACAC AACTGTTTAA TAGTACTTGG TTTAATAGTA

      6910        6920        6930        6940        6950        6960
CTTGGAGTAC TGAAGGGTCA AATAACACTG AAGGAAGTGA CACAATCACA CTCCCATGCA

      6970        6980        6990        7000        7010        7020
GAATAAAACA ATTTATAAAC ATGTGGCAGG AAGTAGGAAA AGCAATGTAT GCCCCTCCCA

      7030        7040        7050        7060        7070        7080
TCAGCGGACA AATTAGATGT TCATCAAATA TTACAGGGCT GCTATTAACA AGAGATGGTG

      7090        7100        7110        7120        7130        7140
GTAATAACAA CAATGGGTCC GAGATCTTCA GACCTGGAGG AGGAGATATG AGGGACAATT

      7150        7160        7170        7180        7190        7200
GGAGAAGTGA ATTATATAAA TATAAAGTAG TAAAAATTGA ACCATTAGGA GTAGCACCCA

      7210        7220        7230        7240        7250        7260
CCAAGGCAAA GAGAAGAGTG GTGCAGAGAG AAAAAAGAGC AGTGGGAATA GGAGCTTTGT

      7270        7280        7290        7300        7310        7320
TCCTTGGGTT CTTGGGAGCA GCAGGAAGCA CTATGGGCGC ACGGTCAATG ACGCTGACGG

      7330        7340        7350        7360        7370        7380
TACAGGCCAG ACAATTATTG TCTGGTATAG TGCAGCAGCA GAACAATTTG CTGAGGGCTA

      7390        7400        7410        7420        7430        7440
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TTGAGGCGCA ACAGCATCTG TTGCAACTCA CAGTCTGGGG CATCAAGCAG CTCCAGGCAA

7450 7460 7470 7480 7490 7500
GAATCCTGGC TGTGGAAAGA TACCTAAAGG ATCAACAGCT CCTGGGGATT TGGGGTTGCT

7510 7520 7530 7540 7550 7560
CTGGAAAACT CATTTGCACC ACTGCTGTGC CTTGGAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAATTACA

7630 7640 7650 7660 7670 7680
CAAGCTTAAT ACATTCCTTA ATTGAAGAAT CGCAAAACCA GCAAGAAAAG AATGAACAAG

7690 7700 7710 7720 7730 7740
AATTATTGGA ATTAGATAAA TGGGCAAGTT TGTGGAATTG GTTTAACATA ACAAATTGGC

7750 7760 7770 7780 7790 7800
TGTGGTATAT AAAAATATTC ATAATGATAG TAGGAGGCTT GGTAGGTTTA AGAATAGTTT

7810 7820 7830 7840 7850 7860
TTGCTGTACT TTCTATAGTG AATAGAGTTA GGCAGGGATA TTCACCATTA TCGTTTCAGA

7870 7880 7890 7900 7910 7920
CCCACCTCCC AACCCCGAGG GGACCCGACA GGCCCGAAGG AATAGAAGAA GAAGGTGGAG

7930 7940 7950 7960 7970 7980
AGAGAGACAG AGACAGATCC ATTCGATTAG TGAACGGATC CTTAGCACTT ATCTGGGACG

7990 8000 8010 8020 8030 8040
ATCTGCGGAG CCTTGTGCCT CTTCAGCTAC CACCGCTTGA GAGACTTACT CTTGATTGTA

8050 8060 8070 8080 8090 8100
ACGAGGATTG TGGAACTTCT GGGACGCAGG GGGTGGGAAG CCCTCAAATA TTGGTGGAAT

8110 8120 8130 8140 8150 8160
CTCCTACAGT ATTGGAGTCA GGAACTAAAG AATAGTGCTG TTAGCTTGCT CAATGCCACA

8170 8180 8190 8200 8210 8220
GCCATAGCAG TAGCTGAGGG GACAGATAGG GTTATAGAAG TAGTACAAGG AGCTTGTAGA

8230 8240 8250 8260 8270 8280
GCTATTCGCC ACATACCTAG AAGAATAAGA CAGGGCTTGG AAAGGATTTT GCTATAAGAT

8290 8300 8310 8320 8330 8340
GGGTGGCAAG TGGTCAAAAA GTAGTGTGGT TGGATGGCCT ACTGTAAGGG AAAGAATGAG

8350 8360 8370 8380 8390 8400
ACGAGCTGAG CCAGCAGCAG ATGGGGTGGG AGCAGCATCT CGAGACCTGG AAAAACATGG

8410 8420 8430 8440 8450 8460
AGCAATCACA AGTAGCAATA CAGCAGCTAC CAATGCTGCT TGTGCCTGGC TAGAAGCACA

8470 8480 8490 8500 8510 8520
AGAGGAGGAG GAGGTGGGTT TTCCAGTCAC ACCTCAGGTA CCTTTAAGAC CAATGACTTA

8530 8540 8550 8560 8570 8580
CAAGGCAGCT GTAGATCTTA GCCACTTTTT AAAAGAAAAG GGGGGACTGG AAGGGCTAAT

8590 8600 8610 8620 8630 8640
TCACTCCCAA CGAAGACAAG ATATCCTTGA TCTGTGGATC TACCACACAC AAGGCTACTT

8650 8660 8670 8680 8690 8700

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CCCTGATTGG CAGAACTACA CACCAGGGCC AGGGGTCAGA TATCCACTGA CCTTTGGATG

      8710        8720        8730        8740        8750        8760
GTGCTACAAG CTAGTACCAG TTGAGCCAGA TAAGGTAGAA GAGGCCAATA AAGGAGAGAA

      8770        8780        8790        8800        8810        8820
CACCAGCTTG TTACACCCTG TGAGCCTGCA TGGAATGGAT GACCCTGAGA GAGAAGTGTT

      8830        8840        8850        8860        8870        8880
AGAGTGGAGG TTTGACAGCC GCCTAGCATT TCATCACGTG GCCCGAGAGC TGCATCCGGA

      8890        8900        8910        8920        8930        8940
GTACTTCAAG AACTGCTGAC ATCGAGCTTG CTACAAGGGA CTTTCCGCTG GGGACTTTCC

      8950        8960        8970        8980        8990        9000
AGGGAGGCGT GGCCTGGGCG GAACTGGGGA GTGGCGAGCC CTCAGATGCT GCATATAAGC

      9010        9020        9030        9040        9050        9060
AGCTGCTTTT TGCCTGTACT GGGTCTCTCT GGTTAGACCA GATTTGAGCC TGGGAGCTCT

      9070        9080        9090        9100           0           0
CTGGCTAACT AGGGAACCCA CTGCTTAAGC CTCAATAAAG CTT
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Fig 2b